

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 50.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-001216**Date Inspected:** 28-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Jiangyin**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William( Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** Office, Lift 2 East, Lift 2 West, OBG 7AE, O**Bid Item:** 77, 78, 79,**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

Office

Attend to report writing and project documentation.

OBG 7AE

ZPMC cleaning external surfaces by blowing down with dry compressed air in preparation of "mist" coat application of Interfine 979. ZPMC then washed external surfaces and delayed application of "mist" coat. ZPMC applied "mist" coat after surfaces were once again blown down and dried.

Lift 2 East

ZPMC requested a "Final" inspection on the internal surfaces of the Cross Beam termination and FL-3 Beams. Inspection conducted and surfaces were in general compliance with the contract documents and ZPMC then placed additional tarp at the entrance to the end of the FL-3 section thus blocking it off in an attempt to protect coated surfaces from damages by other personnel and operations.

OBG 6AW

Base metal internal surfaces of the ceiling area "U" rib stiffeners and Upper Corner units and Upper Chevron beams were abrasive blasted for a VT inspection purpose prior to full SSPC SP-10 blast. VT was performed by Caltrans QA Rodney Patterson and Tim McClendon and mapped accordingly. Surface defects were in process of grinding of sharp edges, burrs, gouges as identified by joint inspection.

OBG 6CE

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## SOURCE INSPECTION REPORT

( Continued Page 2 of 2 )

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Testing for cure of Undercoat Interzinc 22 was performed MEK tests all passé with a 5 rating and Chloride levels were checked and Values observed were 10, 10, 10us/cm on undercoated surfaces. ZPMC requested inspection prior to “Mist” coat application of Interfine 979. Caltrans QA Lumley identified areas of Low Dry Film Thickness (DFT) and ZPMC applied “Mist” coat to all other areas on the external surfaces with the exception of approximately a 3X3 square meter area on the East Side Plate which required additional coat of Interzinc 22 as this area had Low DFT readings. ZPMC applied additional coat of Interzinc 22 to affected areas.

### Lift 2 West

Repair areas of the Cross Beam Bottom Plate area currently I Undercoat of Interzinc 22 were “Mist” coated with Interfine 979. Caltrans QA Lumley inquired as to protection of exposed bolts in adjacent area from overspray damages as the bolts had not yet received the two coats of organic zinc rich undercoat. ZPMC stated the bolts had not been torque as of yet. Also the inspection for the Counterweight bolts and adjacent areas had been cancelled due to lack of access.

### Lift 2 East

Repair areas of the Cross Beam Bottom Plate areas were inspected prior to “Mist” coat application of Interfine 979 and rejected due to improper feathering of adjacent repaired areas. ZPMC amended the feathering issue and the exposed bolts on this assembly were already coated with organic zinc rich undercoat.

### Sub-Assemblies

Base Metal surfaces of 165 Splice Plates were washed and de-greased in accordance with SSPC SP-1 in preparation of abrasive blasting operations.

### OBG 6AW

Internal Base metal surfaces of the Ceiling “U” rib stiffener areas and Upper Floor Beam Diaphragms and Chevron connection assemblies from Panel Points 37-39 were inspected for SSPC SP-10 condition and rejected as SSPC SP-10 condition was not met. ZPMC resumed re-blasting operations.

Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

### Summary of Conversations:

Caltrans QA Lumley informed ABF QA Bill Oak of Low Dry Film Thickness readings on external surfaces of OBG 6CE. Bill Oak stated ZPMC would not apply Interfine 979 to the areas identified.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (858) 699-7549, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Lumley, James	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon, Albert	QA Reviewer

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